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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/062,340	01/31/2002	Michael Renn Neal	3919P012	1744
25928	7590	05/18/2005	EXAMINER	
CHRISTOPHER J. KULISH, ESQ			BLACKWELL, JAMES H	
HOLLAND & HART LLP			ART UNIT	PAPER NUMBER
P. O. BOX 8749			2176	
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DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/062,340	NEAL ET AL.	
	Examiner James H Blackwell	Art Unit 2176	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 04 February 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-47 is/are pending in the application.  
 4a) Of the above claim(s) 12-24 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1-11 and 25-47 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on 31 January 2002 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>01/31/02</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

This Office Action is in response to Restriction/Election received 02/04/05. Note, the elected claims listed by the applicant as belonging to Group I, were incorrect; consisting of claims 1-44, and 25-47. The examiner has noted the apparent error and that the claims to be listed as elected actually consist of Claims 1-11 and 25-47. It is this listing of claims that were examined in this office action.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

The term "at least some" in claims 8, 25, 28-30, 34, 38-39, 42, and 44-46 is a relative term which renders the claim indefinite. The term "at least some" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

The terms group(ing), and consolidate(ing) are not well defined in the specification. For example, the Specification relies primarily on the Fig. 4 to define what grouping means. Likewise, for the definition of consolidating (Fig. 6). It is unclear whether the acts of grouping and consolidating are one in the same, or if they are separate functions. The examiner will treat these two terms as being identical.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter. Method claims 1-11, and 25-41 appear to be drawn to no more than an abstract idea in that all of the method steps can be performed with pencil and paper and, thus, do not practically apply an abstract idea to produce a useful, concrete, tangible result. Method claims 1-11, and 25-41 are therefore non-statutory under 35 U.S.C. 101.

The claimed invention is directed to non-statutory subject matter. Claims 36-41 use the phrase "machine usable medium". However, in the Specification (p. 27, Para. 69) it is mentioned that among the list of possible "mediums" consists of "data signals embodied in a carrier wave or other machine-readable propagation medium via a communication link (e.g., a modem or network connection)" (emphasis added). A carrier wave is not a tangible medium and is therefore not statutory.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11, and 25-47 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lo et al. (hereinafter, Lo, U.S. Patent No. 6,523,040) in view of Bliss et al. (hereinafter Bliss, U.S. Patent No. 5,884,306).

In regard to independent Claim 1, Lo teaches *displaying a list of items in an electronic catalog, each item corresponding to a row of the display, each row having values corresponding to attributes of the corresponding items arranged into attribute columns* (see Fig. 8).

Lo also teaches *grouping some of the displayed items based on a selected attribute upon receiving a grouping command so that the grouped items are each displayed in a single row* (see Fig. 10).

Lo fails to specifically teach *expanding the grouped items upon receiving an expand command so that the grouped items are each displayed in a separate row*. However, Bliss teaches grouping of information based on a selection of a specific field (Col. 9, lines 32-34; Fig. 6). The grouped items can be ungrouped by clicking onto the header in the grouping box (70) using the mouse (29) and dragging the header out of

the grouping box (70). In Fig. 6, the group headings (102) indicate that the items are grouped by subject and that the subjects are Litigation, comprising two items, Patent, comprising five items, and TM (trademark), comprising four items. To display the actual items listed under each subject, the fields must be converted to an expanded view as shown in Fig. 7. Here, the subject groupings are seen in an expanded view, whereby the respective items for each subject can be viewed on the display screen. To display the items listed under each subject in the expanded view, the user moves the mouse (29) to any of the group headings (110), (112), and (114) that the user would like to display in the expanded view. The user then clicks the mouse (29) one time on the selected group heading. Once the group heading is selected, the field automatically converts to the expanded view. To return to the collapsed view, the user need only click the mouse (29) a second time on the selected group heading (Col. 9, lines 60-67; Col. 10, lines 1-4). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Lo and Bliss as both inventions relate to table manipulations. Adding the teaching of Bliss allows one to alternatively collapse and expand tables to examine different levels of detail.

Lo continues by teaching *removing a row corresponding to an item or to grouped items from the display upon receiving a row remove command* in that Lo's invention performs row reduction, where a resultant row represents a summary of two or more original rows. Namely, combinations of original rows are collapsed into single summary rows (Col. 5, lines 47-64).

Lo also teaches *removing a column corresponding to an attribute of the items from the display upon receiving a column remove command* in that Lo's invention performs column reduction in a number of ways. One method is to simply drop the column. Another method is to reduce the data type into a shorter format. For example, a salary of \$123,456 could be displayed as 123K. For a "heart disease", one can simply use an abbreviation of HD. Yet another method is to merge multiple columns into a single one. For example, one can combine a two columns Sex=F and Age=25 into a single column Sex/Age=F/25. For a three-column address, such as Street, City, and Zip Code, these can be merged into a single column with all the information combined (Col. 6, lines 5-15). Lo's invention invokes the various claimed *commands* through a table summarizer module (233) associated with compressing or reducing the row/column configuration in accordance with a set of predefined rules (i.e., meta-data), viewing device capabilities, and a user viewing preference rule set. The method generally involves row reduction based on partition rules followed by column reduction (Col. 8, lines 32-43).

In regard to dependent Claim 2, Lo fails to specifically teach *sorting the items based on attribute values upon receiving a sort command for one of the displayed attributes*. However, Bliss teaches that the method of grouping the items by the selected field involves primarily three steps. The first step is to sort the items by the selected field. The items are then scanned for duplicate field groups. Once the duplicate field groups are determined, the duplicate field groups are eliminated to provide a discrete set of field groups (Col. 2, lines 3-8). It would have been obvious to one of ordinary skill

in the art at the time of invention to combine the teachings of Lo and Bliss as both inventions relate to table manipulations. Adding the teaching of Bliss allows one to easily identify and remove duplicate entries.

In regard to dependent Claim 3, Lo teaches *restricting the displayed items to a range of values for one of the displayed attributes upon receiving a refinement command for one of the displayed attributes* in that if a column is of a numeric data type, the column value of the resultant row can be the average value, the *range of values*, or the maximum/minimum (Col. 5, lines 56-58; Figs. 8-10).

In regard to dependent Claim 4, Lo fails to explicitly teach *receiving a refinement command comprises receiving a selection of a value for the one of the displayed attributes*. However, Bliss teaches a Group By Box command is selected in step (404), in response to user-provided input. After the Group By Box command is selected, in step (406), a grouping box appears on the display screen. Next, a desired field for grouping items is selected in response to user-provided input in step (408) (Col. xx, lines xx-xx; Fig. 18). Thus, Bliss allows one to define how the grouping will occur by inputting a field. It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Lo and Bliss as both inventions relate to table manipulations. Adding the teaching of Bliss allows one to define groupings based on a field.

In regard to dependent Claim 5, Lo teaches *displaying a count of the grouped items in the corresponding single row* in that depending on the column data type (ASCII, Numeric, etc. . . .), the column value of the resultant row can contain, *inter alia*, the

same value (if all the values in the original rows are the same), or the same value plus a count (i.e., the number of value occurrences), NULL (indicating different values on the original rows), or a majority value (e.g., 8 of the 10 original values are the same) (Col. 5, lines 47-55).

In regard to dependent Claim 6, Claim 6 reflects the method of displaying a list of items in an electronic catalog as claimed in Claim 1, and is rejected along the same rationale.

In regard to dependent Claim 7, Lo teaches grouping further ones of the displayed items including grouped items based on a second selected attribute upon receiving a second grouping command so that the further grouped items are displayed in a single row in that Lo merges multiple columns into a single one. For example, one can combine a two columns Sex=F and Age=25 into a single column Sex/Age=F/25. For a three-column address, such as Street, City, and Zip Code, these can be merged into a single column with all the information combined (Col. 6, lines 5-15). Though Lo does not explicitly teach that this can be done multiple times, it would have been obvious to one of ordinary skill in the art at the time of invention to conclude that if such an action can be performed once, it can be performed at least more than once, providing the benefit of narrowing the table to precisely what the consumer is looking for.

In regard to dependent Claim 8, Lo teaches grouping comprises comparing the values for the selected attribute for at least some of the items and combining items that have the same value for the attribute into a single row in that a resultant row represents

a summary of two or more original rows. Namely, combinations of original rows are collapsed into single summary rows. Depending on the column data type (ASCII, Numeric, etc. . . .), the column value of the resultant row can contain, *inter alia*, *the same value (if all the values in the original rows are the same)* (Col. 5, lines 47-52).

In regard to dependent Claim 9, Lo teaches *grouping comprises comparing the values for the selected attribute for at least some of the items and combining items that have values for the attribute within a range into a single row* in that if a column is of a numeric data type, the column value of the resultant row can be the average value, the *range of values*, or the maximum/minimum (Col. 5, lines 56-58; Figs. 8-10).

In regard to dependent Claim 10, Lo teaches *removing all of the items from the display except for items of a selected category upon receiving a category command; and displaying item values for attributes related specifically to the selected category* in that if a column is of a certain well-defined hierarchical semantic data type, the column value of the resultant row can be the common ancestor in the domain hierarchy. For example, in the case of an automobile hierarchy, if "gasoline powered" cars at one hierarchical level, are sub-grouped as "high-octane" and "low-octane" cars at a lower hierarchical level, then the resultant column value is represented simply as "gasoline powered" thereby removing the lower hierarchical distinction between high and low octane automobiles in the resultant row (Col. 5, lines 61-67; Col. 6, lines 1-4).

In regard to dependent Claim 11, Claim 11 reflects the method of displaying a list of items in an electronic catalog as claimed in Claim 1, and is rejected along the same rationale.

In regard to independent Claims 25 (and similarly independent Claims 36, and 42), Lo teaches *displaying a list of items and displaying values for a plurality of attributes of each item* as seen in Figs. 8, 10, and 11b).

Lo also teaches *receiving a selection of one of the displayed attributes* in that metadata is received by the proxy server in the form of table reduction rules (i.e., meta-data) specific to the employee table of Fig. 8. The table reduction rules (901) can be generally into a default partition attribute (902) having an associated partition method and combination functions (903), both of which are required meta-data inputs for performing row reduction by the table summarizer module (233) of the proxy server (203) (Col. 9, lines 49-60).

Using this mechanism, Lo also teaches *consolidating at least some of the displayed items based on the selected attribute* as a result of applying the table reduction rules.

Lo also teaches displaying the consolidated items as a single item (see Fig. 11b).

In regard to dependent Claim 26 (and similarly dependent Claims 37, and 43), Lo teaches *displaying a count of the consolidated items that are displayed as a single item in association with the displayed single item* in that depending on the column data type (ASCII, Numeric, etc. . . .), the column value of the resultant row can contain, *inter alia*, the same value (if all the values in the original rows are the same), or *the same value plus a count* (i.e., *the number of value occurrences*), NULL (indicating different values on the original rows), or a majority value (e.g., 8 of the 10 original values are the same) (Col. 5, lines 47-55).

In regard to dependent Claim 27, Lo teaches *displaying the values for a second attribute of the consolidated items by displaying a range for the attribute values* in that if a column is of a numeric data type, the column value of the resultant row can be the average value, the *range of values*, or the maximum/minimum (Col. 5, lines 56-58; Figs. 8-10).

In regard to dependent Claim 28 (and similarly dependent Claims 38, and 44), Lo fails to explicitly teach that *the processor further consolidates at least some of the displayed items including consolidated items based on a second attribute selection received from the user interface and provides the further consolidated items to be presented as single items on the display*. However, Lo does teach that a user may specify a user viewing preference to further modify the table display (Abstract).

Lo also teaches that the condensing of the table is dictated by metadata rules that describe a sequence of condensing procedures to be done to a table in order to prepare it for display on a given device (PDA, Laptop, etc.). It would have been obvious to one of ordinary skill in the art at the time of invention to simply further condense the table described by Lo by adding additional metadata rules to those that already exist providing the benefit of creating a table that can fit on a device with a limited display.

In regard to dependent Claim 29 (and similarly dependent Claims 39, and 45), Lo teaches *consolidating comprises comparing the values for the selected attribute for at least some of the items and combining items that have the same value for the attribute into a single consolidated item* (see Fig. 10).

In regard to dependent Claim 30 (and similarly dependent Claim 46), Lo teaches *receiving a selection of a range of values* in that metadata is received by the proxy server in the form of table reduction rules (i.e., meta-data) specific to the employee table of Fig. 8. The table reduction rules (901) can be generally into a default partition attribute (902) having an associated partition method and combination functions (903), both of which are required meta-data inputs for performing row reduction by the table summarizer module (233) of the proxy server (203) (Col. 9, lines 49-60).

Using this mechanism, Lo also teaches *consolidating at least some of the displayed items based on the selected attribute* as a result of applying the table reduction rules. More specifically, Lo teaches *comparing the values for the selected attribute for at least some of the items and combining items that have an attribute value within the selected range into a single consolidated item* in that if a column is of a numeric data type, the column value of the resultant row can be the average value, the *range of values*, or the maximum/minimum (Col. 5, lines 56-58; Figs. 8-10).

In regard to dependent Claim 31 (and similarly dependent Claims 40, and 47), Claim 31 (and similarly dependent Claims 40, and 47) reflects the method of displaying a list of items in an electronic catalog as claimed in Claim 1, and is rejected along the same rationale. In addition, Lo fails to teach *removing all of the items from the display except for the consolidated items*. However, it would have been obvious to one of ordinary skill in the art at the time of invention to allow for this feature because it is notoriously well known in the art to deselect items in a listing that one is not interested in

to simplify the display. This is especially true where a large number of items are involved.

In regard to dependent Claim 32, Claim 32 reflects the method of displaying a list of items in an electronic catalog as claimed in Claim 1, and is rejected along the same rationale. It is similar to removing a row or column.

In regard to dependent Claim 33, Lo fails to specifically teach *receiving a selection comprises receiving a selection through a user interface*. However, Bliss teaches such a user interface (see Figs. 2-16). It would have been obvious to one of ordinary skill in the art at the time of invention to combine the teachings of Lo and Bliss as both inventions relate to table manipulations. Adding the teaching of Bliss allows one to alternatively collapse and expand tables to examine different levels of detail.

In regard to dependent Claim 34 (and similarly dependent Claim 41), Lo teaches *receiving a selection of a category corresponding to at least one of the items; displaying values for the at least one item for attributes related specifically to items of the selected category; receiving a selection of a category specific attribute; and consolidating at least some of the displayed items of the selected category based on the selected attribute* in that if a column is of a certain well-defined hierarchical semantic data type, the column value of the resultant row can be the common ancestor in the domain hierarchy. For example, in the case of an automobile hierarchy, if "gasoline powered" cars at one hierarchical level, are sub-grouped as "high-octane" and "low-octane" cars at a lower hierarchical level, then the resultant column value is represented simply as "gasoline".

"powered" thereby removing the lower hierarchical distinction between high and low octane automobiles in the resultant row (Col. 5, lines 61-67; Col. 6, lines 1-4).

In regard to dependent Claim 35, Lo teaches *removing all of the items from the display except for items of the selected category* in that if a column is of a certain well-defined hierarchical semantic data type, the column value of the resultant row can be the common ancestor in the domain hierarchy. For example, in the case of an automobile hierarchy, if "gasoline powered" cars at one hierarchical level, are subgrouped as "high-octane" and "low-octane" cars at a lower hierarchical level, then the resultant column value is represented simply as "gasoline powered" thereby removing the lower hierarchical distinction between high and low octane automobiles in the resultant row (Col. 5, lines 61-67; Col. 6, lines 1-4).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James H Blackwell whose telephone number is 571-272-4089. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James H. Blackwell  
05/11/05



SANJIV SHAH  
PRIMARY EXAMINER